

Managing Information with **Disrupting Technologies**

"According to Continental Research's findings, 60% of employees spend on average 15 minutes per day searching for information; 15% spend around 30 minutes; and 7% an hour or more"

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Introduction

The emergence of multiple industry-disrupting technologies has made it more important than ever for businesses to assess their IT needs, identify business-specific use cases for these new cost-saving and efficiency-enhancing solutions, and partner with competent and experienced technology vendors and implementation partners to ensure smooth, efficient solution deployment and rapid ROI.

The advent of new technologies has given rise to “big data” and posed a new challenge for organizations to not only turn this information overload into valuable and actionable insights, but also to effectively exchange it with business partners, employees and consumers so that each entity can get the right amount of information at the desired place and time. As technology has evolved, enterprises have come to see that there is no one-size-fits-all strategy for a successful utilization, chunking, transferring, and disposing of data.

Systems Limited and IBM co-hosted an Information Management Summit to engage with regional businesses, determine their unique information management needs, educate on recent developments in digital information technology, and showcase multiple disrupting strategies that can be adopted to take an organization from good to great.

The event was opened by Asif Peer, CEO, Systems Limited, and Shariq Rehman, Country Head for IBM Pakistan’s Software Division, who provided a brief overview of how information can be learned, simplified and transferred with robotic process automation (RPA), API Connect, and Aspera technologies. They also emphasized the importance of identifying unique use cases within an organization to map these versatile technologies to specific problems. They concluded their remarks by stressing the importance of evaluating technology needs that will bring in true long-term returns instead of acting on technological trends from hearsay or competitor’s strategy. To do this right, it’s important to leverage the value offered by IBM and Systems as partners that possess in-depth industry experience and can also provide guidance and support on the ground.

It was also found that organizations in the same industry verticals only had a partial overlap in use cases; 40% of their use cases for these digital technologies were unique to the way they did business and the specific business objectives they had decided to pursue. During the session, attendees engaged and discussed their unique challenges and Systems and IBM’s offered a detailed understanding of how to apply these foundational digital tools to each attendee’s own business objectives to maximize impact.

Speakers

Opening Remarks Asif Peer, CEO, Systems Limited
Shariq Rehman, Country Head, Software Division, IBM Pakistan

Robotic Process Automation Zubair Anjum, VP Marketing and Strategy, Systems Limited

IBM API Connect Mairaj Yousuf, Cloud Sales Leader, IBM Pakistan

IBM Aspera Muhammad Arsalan, Technical Consultant, IBM Pakistan

Despite being a relatively new solution, robotic process automation (RPA) is a rapidly evolving technology. In its initial years, RPA was used to automate relatively simple, repetitive tasks like scanning documents, extracting data, and importing that data into information systems. As RPA products matured, they began to incorporate cognitive elements that enabled them to reason and make decisions based on context and various subtle cues in the input data. These abilities have finally allowed businesses to rely on leading RPA platforms like IBM's partner, Automation Anywhere, to consistently produce positive results with near-100% accuracy.

Automation Anywhere has been named an industry leader in RPA by Forrester, Gartner, and other research firms, primarily for its advanced cognitive abilities. Thanks to this new functionality, Automation Anywhere's bots keep track of how humans respond to exceptional situations (handled through IBM's accompanying Business Process Manager Solution) and learn from these examples. When these exceptions arise again, these continuously improving bots will be capable of performing their designated action without any further human supervision or intervention. Exceptions become rarer and rarer, and processing accuracy steadily converges towards 100%.

On an individual level, bots can access nearly all of the data that a knowledge worker encounters during a typical day. This includes structured data like Excel spreadsheets, CSV files, and PowerPoint presentations, as well as unstructured data in emails, custom-developed business software, web portals, and countless other disparate information systems. Bots can extract, transform, combine, and display data from any of these sources in a wide array of formats, satisfying a virtually limitless range of use cases. Bots accomplish this at a fraction of the cost and in a fraction of the time that a large team of human workers would take, and can operate at peak efficiency on a 24x7x365 basis.

At an organizational level, cognitively enabled bots represent a huge opportunity for businesses with even dozens of separate business applications to integrate these platforms and consolidate their records in weeks instead of months, and drastically reduce their labor costs at the same time. Systems Limited has used RPA technology to help large firms automate financial report generation that used to take months to complete. In another case, a large firm in the energy industry wanted to hire low-cost labor to create a separate website for each project they completed. Instead, Systems used RPA to automate site creation in the time it would have taken to complete the hiring process!

RPA is a quick-deploying, high-ROI technology that maintains its value over the long term by allowing users to retrain bots at the application level – no costly and error-prone API-level changes are required. Bots are technology agnostic, and can perform any digital task that a human user can. As long as the process can be defined and repeated, it can be automated using RPA.

Its short deployment cycle makes RPA solutions particularly attractive. Instead of the 6-month cycle associated with more traditional automation projects, bots can be deployed for the same business requirements in approximately 4 weeks. Simpler requirements can be addressed within mere days or hours!

Instead of the considerable time and investment requirements of recruiting human knowledge workers (interviews, onboarding, training, compensation, benefits, facilities, information security, attrition, etc.), bots require nothing more than a software license and relatively simple configuration to begin producing superhuman results. A single bot can produce as much output as 15 human workers in the same amount of time. Put another way, a bot takes one minute to perform a task that takes a human worker 15 minutes to complete.

Many companies use chatbots on their websites as an initial point of contact for customers, but fall short of expectations because of their inability to provide diverse, context-sensitive responses. Their replies tend to be repetitive, narrow in scope, and artificial-sounding. Newer cognitively enabled bots powered by IBM Watson technology are much more lifelike and effective chat agents and virtual assistants. They understand and adapt to various kinds of subtle cues and nuances, so that their responses to happy customers and irate customers are contextually appropriate.

Systems Limited is in the process of developing a chatbots for a large US bank that provides auto insurance quotes via SMS, Skype, WhatsApp, and other chat services. Users provide information in the form of a natural text conversation about their price range, desired loan terms, and so on, and the bot provides auto insurance quotes from multiple lenders that best match their requirements.

Systems Limited help businesses with the assessment, definition, design, configuration, testing, deployment, and retraining of new or existing bots. We add cognitive capabilities to previous-generation RPA solutions, recommend RPA best practices used by leading global organizations, and provide guidance and support in RPA-enabled operations.

RPA has had a profound impact on Systems' own business process outsourcing practice. In five years, data entry personnel have been reassigned to supervise bots. These bots perform the same tasks that humans used to perform. As a result Systems' annual BPO revenue has grown from \$10M to \$40M.

APIs have helped organizations empower internal developers, partners, and third-parties by leveraging existing digital assets. Exposing various aspects of your digital systems using APIs allows internal and external developers to create innovative micro services that make use of your data and digital services, which extends your audience and strengthens your digital presence by creating an API ecosystem. These API-based micro services can then be monetized to create new revenue streams.

There are several challenges associated with creating and exposing APIs. First, it is essential that API exposure is managed in a secure manner. API version management can also be difficult. Maintaining and distributing API documentation is another task that can require considerable effort. Organizations often have trouble adequately monetizing APIs and monitoring API usage. Ideally, as many of these activities as possible should be made code-free so that they can be performed by non-programmers.

IBM API Connect is an end-to-end solution for creating, securing, managing, publishing, and monetizing APIs. It allows organizations to respond rapidly to market changes by generating APIs in minutes. IBM API Connect provides support for rapid development and accelerated time to market, and comes with a customizable self-service developer portal for publishing APIs and integrated tools for security and performance monitoring. With support for on-premises, cloud, and hybrid deployment, IBM API Connect can be added seamlessly to virtually any organization's IT ecosystem.

IBM API Connect is typically deployed in conjunction with IBM DataPower Gateway, a purpose-built physical or virtual multichannel appliance that provides central governance for API, mobile, web, SOA, B2B, and cloud workloads. IBM DataPower Gateway simplifies the management of security, access control, service levels, and policy enforcement for APIs and micro services.

Systems Limited has implemented IBM API Connect and IBM DataPower Gateway for several large organizations, including FinTech firms and financial institutions looking to expose APIs, provide services to partner organizations, and expand their consumer reach. The Systems implementation team typically handles large implementations in 4 to 6 weeks, allowing businesses to reach new audiences and nurture development communities around their digital services.

Big Data Transfer Challenges

Muhammad Arsalan, Technical Consultant, IBM Pakistan

Increases in demand for video and other high-volume media, the advent of the “Internet of Things”, a new emphasis on “Big Data”, and the steady migration of enterprise data from on-premises storage to the cloud have multiplied global bandwidth requirements.

WAN speeds tend to degrade over long distances using traditional protocols. Using HTTP interface over the “last foot” in cloud datacenters produces another bottleneck. There are also challenges associated with delegating control over data movement and bandwidth utilization. For these reasons, organizations that handle high data volumes and large files require a secure and reliable solution for effectively managing large data transfers.

IBM Aspera is a dramatically faster, better, and more secure way to move large volumes of data. With over 95% bandwidth utilization and over one hundred times the transfer rates of TCP, it is especially effective for addressing the challenge of moving data in, out, and across the cloud. IBM Aspera operates on a cloud or hybrid model, and has established strategic partnerships with Amazon AWS and Microsoft Azure.

The Media & Entertainment industry requires support for high-volume video streaming, virtual reality, and rich, immersive content delivery at high speeds. IBM Aspera provides support for high-volume data transfer and provides monitoring and control dashboards to keep track of where data is sent. Aspera’s proprietary transfer technology is fast, reliable, and secure, and includes comprehensive user control, logging and reporting capabilities. Film and TV production companies can transfer files and coordinate with post-production teams worldwide.

IBM Aspera has helped global media companies expedite the sharing of multi-GB end-of-day footage, upload over 30 TB of new video content to streaming services 10x faster, and reduce on-premises media storage costs by up to 90%.

The benefits of IBM Aspera extend beyond Media & Entertainment. Banking and Financial Services, Retail, and many other industries that need to share large datasets with partners and team members around the world can improve collaboration and operational efficiency by drastically reducing file transfer times.

In Closing

As organizations go digital, an increasing level of complexity is adding up due to emergence of new sources of information, big data, pressure for transparency and faster time to market by customers and for efficient data consumption and learning by employees. Competitors are exploring these rapidly trending disrupting technologies and further burden organizations to plan a technology roadmap that best the firm's internal structure and external dynamics.

Only through expert consultation from technology partners, you can adopt information management technologies covered in this whitepaper and create readiness for sustainable business growth.

Event Participants

Al Meezan Investment Management Ltd. Syed Khurram Ali, Head of IT

Allianz EFU M. Kaleem Arifeen, Chief IT Manager

Arc Point Syed Faisal Bin Iqbal, Regional Manager Sales (South)

Brands Just Pret
Muhammad Ali
Muhammad Taha

Central Depository Company of Pakistan Ltd. Naveed Uddin, Manger Application Development
Saqib Moin, Senior Manager IT
Shah Muhammad Ishaq, Senior Manager IT
Qaiser Imtiaz, Assistant Manager HR
Imran Shah, Deputy Manager Database and Application Administration

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Jorge Miranda, CPO Operations
Waleed Ahmed
Nasir Ali Shah

Employees' Old-Age Benefits Institution (EOBI) Nirmal Bakhtiani, Deputy Director IT
Anwer Hussain
Noushad Ali

GEO TV Khurram Naushad, Manager Information Systems

Habib Metropolitan Bank Ltd. Muhammad Aslam Dewani, Branch Manager

IBM Arsalan Mughal, Data Warehouse Consultant

JS Bank Ltd. Jawwad Murtaza Khan, Sr. Technical Architect Core Banking Systems

Khaadi Shehzad Younus, Lead Business Relationship Manager

Lakson Investments Adeem Akhtar, Manager IT

Event Participants

MCB Bank Ltd. Shozab Raza, Product Officer Debit Card
Sajid Fahim
Farhan Ahmed, Unit Head
Samar Ali Khan, Manger MIS
Shahzad Raza

National Clearing Company of Pakistan Ltd. Humayun Bashir, Chairman Startups, Fintechs, Capital Markets and Boards

Pak Suzuki Motor Company Ltd. Kanwer Rehan Ali, Manager IT
Nadeem Akhter, Deputy Manager IT
Muhammad Farhan, Manager Information Technology

Pakistan Herald Publications (Pvt.) Ltd. Shabbir Hussain Ferozporwala, General Manager – MIS
Murtaza Iqbal, Manager Software & New Media

Philip Morris (Pakistan) Ltd. Nida Shamim, Manager IS Commercial
Imran Ul Haque, Manager IS Operations

Soorty Enterprises (Pvt.) Ltd. M. Qasim Bham, Head of IT

State Bank of Pakistan Rizwan
Kamran

State Life Insurance Ghulam Nabi

TCS (Pvt.) Ltd. Syed Mohsin Ali, Head of Innovation
Ahsen Anis, Manager Innovations

Telenor Microfinance Bank Shafaq Khurram, Manager Sourcing

UBL Fund Managers Ltd. Syed Mubbashir Mahmood, Asst. Manager, Information Security
Aly Osman, Chief Compliance Risk, Information Security & QA Officer

Virtual Remittance Gateway (Pvt.) Ltd. Ashfaq Naveed, Head of Business Management
Muhammad Kashif, Head of Business Procedures and Control
Mirza Waris Zamir

About Systems Limited

Systems Limited is a global leader of next-generation IT services and solutions. Since its inception in 1977, the company has evolved and taken center stage in information and technology by providing computing strategies and solutions to government and private organizations.

With more than forty years of experience and evolution, we have accomplished projects across in the US, Pakistan, Middle East and Africa. Systems Limited has a proven track record of providing business solutions to clients from diverse industries, including Fortune 500. Our offshore facilities comprise of over 3000 employees working towards driving business growth and creating value for customers.

About IBM

For more than six decades, IBM Middle East & Pakistan has played a vital role in shaping the information technology landscape of the region. Today, IBM is part of the region's technological fabric, solving real-world business and societal challenges, through its offices in UAE, Saudi Arabia, Qatar, Kuwait and Pakistan, and also a diversity of centers across the region.

Within the region, IBM currently has groundbreaking initiatives in cloud computing, analytics, mobile, security, as well as nanotechnology, government, healthcare and many more, collaborating with leading educational institutes and governments. IBM supports hundreds of clients to drive transformation through technology, contributes to regional research & development programs and has an active Corporate Service Corps (CSC) program.

Reinvention is a keyword in the company's history and, today, IBM is much more than a "hardware, software, services" company. IBM is now emerging as a cognitive solutions and cloud platform company.

References

<http://michealaxelsen.com/blog/?p=207>